

ANSI/AHRI Standard 300

2015 Standard for **Sound Rating and Sound Transmission Loss of Packaged Terminal Equipment**



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IMPORTANT

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Note:

This standard supersedes AHRI Standard 300-2008.

Note:

This version of the standard differs from the 2008 version of the standard in the following:

- This standard references the sound intensity test method defined in ANSI/AHRI Standard 230, as an alternate method of test to the reverberation room test method defined in ANSI/AHRI Standard 220 for determination of sound power ratings.

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SOUND RATING AND SOUND TRANSMISSION LOSS OF PACKAGED TERMINAL EQUIPMENT

Section 1. Purpose

1.1 Purpose. The purpose of this standard is to establish, for packaged terminal equipment: definitions; test requirements; rating requirements; minimum data requirements for Published Ratings; and conformance conditions. Additionally, this standard establishes a method to determine sound transmission loss for Packaged Terminal Equipment.

1.1.1 Intent. This standard is intended for the guidance of the industry, including manufacturers, engineers, installers, contractors and users.

1.1.2 Review and Amendment. This standard is subject to review and amendment as technology advances.

Section 2. Scope

2.1 Scope. This standard applies to the indoor and outdoor sections of factory-made Packaged Terminal Equipment as defined in AHRI Standard 310/380 (CSA-C744).

Section 3. Definitions

All terms in this document will follow the standard industry definitions in the *ASHRAE Terminology* website (<https://www.ashrae.org/resources--publications/free-resources/ashrae-terminology>) unless otherwise defined in this section.

3.1 Octave Band. A band of sound covering a range of frequencies such that the highest is twice the lowest. The Octave Bands used in this standard are those defined in ANSI Standard S1.11.

3.2 One-third Octave Band. A band of sound covering a range of frequencies such that the highest frequency is the cube root of two times the lowest. The One-third Octave Bands used in this standard are those defined in ANSI Standard S1.11.

3.3 Outdoor-indoor Transmission Class (OITC). The A-weighted sound reduction calculated using the equipment sound transmission loss in the range of 80 to 4,000 Hz, as measured in accordance with ASTM 1332 Test Method E90.

3.4 Packaged Terminal Air-conditioner. A wall sleeve and a separate unencased combination of heating and cooling assemblies specified by the builder and intended for mounting through the wall. It includes a prime source of refrigeration, separable outdoor louvers, forced ventilation and heating availability by purchaser's choice of at least hot water, steam or electric resistance heat.

3.5 Packaged Terminal Heat Pump. A separate unencased refrigeration system installed in a cabinet of similar function and configuration to that of a Packaged Terminal Air-conditioner. It utilizes reverse cycle refrigeration as its prime heat source and has other supplementary heat source availability by purchaser's choice of at least hot water, steam or electric resistance heat.

3.6 Published Rating. A statement of the assigned values of those performance characteristics, under stated Rating Conditions, by which a unit may be chosen to fit its application. These values apply to all units of like nominal size and type (identification) produced by the same manufacturer. The term Published Rating includes the rating of